

REMARKS

In response to the Office Action of November 29, 2006, Applicant has amended the claims, which when considered with the following remarks, is deemed to place the present application in condition for allowance. Favorable consideration and allowance of all pending claims is respectfully requested. The amendments to the claims have been made in the interest of expediting prosecution of this case. Applicant reserves the right to prosecute the same or similar subject matter in this or another application.

Claims 1-9, 11-27 and 29-33 are pending in this application. By this Amendment, Claims 14, 17 and 35 have been amended. Support for the amendment of Claim 14 can be found throughout the specification, e.g., the last paragraph of page 34 through the first paragraph of page 35. Support for the amendment of Claim 35 can be found throughout the specification, e.g., the first two full paragraphs of page 3. Claim 17 has been amended to clarify that the step of outputting stores the results of step (b) on a data carrier. Applicant respectfully submits that no new matter has been added to this application. Moreover, it is believed that the claims as presented herein places the application in condition for allowance.

The Examiner has objected to the Abstract for including the legal phraseology "comprising". Although not necessarily agreeing with the Examiner, the Abstract has been amended in a manner believed to obviate this objection. Accordingly, withdrawal of the objection is respectfully requested.

In the Office Action, the Examiner has indicated that Claims 11-14 would be allowable over the prior art if rewritten to overcome the rejection under 35 U.S.C. §112, second paragraph. It is the Examiner's belief that part (b) of Claims 11 and 14 are indefinite since it is not clear

whether the first predetermined temperature is the same or different than the second predetermined temperature and that such a distinction should be made.

With respect to Claim 11, it is a well established rule that “whether a claim is invalid for indefiniteness requires a determination whether those skilled in the art would understand what is claimed when the claim is read in light of the specification.” *Morton International Inc. v. Cardinal Chemical Co.*, 28 USPQ2d 1190, 1194-95 (CAFC 1993). The specification clearly sets forth on the last line of page 31 through the first full paragraph of page 33 that testing panel 410, i.e., the substrate, and the sample are maintained at a predetermined temperature, e.g., from about 100°C to about 400°C and preferably from about 175°C to about 275°C for panel 410 and from about 80°C to about 250°C and preferably from about 160°C to about 200°C for the sample, and the sample is sprayed onto the heated testing panel 410 for a predetermined period of time. The amount of deposits can then be measured by a suitable measuring device, e.g., an analytical balance, by comparing the weight of the panel containing deposits to the predetermined weight of the panel by itself. Thus, it is clear as to what temperature to heat the substrate as well as the temperature to heat the sample. As such, one skilled in the art would readily understand the recitation “measuring deposit formation of each sample comprising heating a substrate to a first predetermined temperature and the sample to a second predetermined temperature, contacting the substrate with the sample and determining the amount of deposits formed on the substrate after a predetermined period of time to provide deposit formation data for each sample” of part (b) of Claim 11 when analyzing the contents of the specification. Therefore, Claim 11 is believed to be sufficiently clear and definite as to comply with the requirements for definiteness under the second paragraph of 35 U.S.C. §112.

With respect to Claim 14, Claim 14 has been amended to recite “wherein the first predetermined temperature is different than the second predetermined temperature”, thus obviating this rejection.

For the foregoing reasons, amended Claims 11-14 are believed to be sufficiently clear and definite as to comply with the requirements for definiteness under the second paragraph of 35 U.S.C. §112. Thus, withdrawal of the rejection under 35 U.S.C. §112, second paragraph, and immediate allowance of amended Claims 11-14 are respectfully requested.

The Examiner has provisionally rejected Claims 1-4, 15-18, 24-27, 29-33 and 35 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 18, 21-22, 24, 27, 30-39 and 41-44 of co-pending Application No. 10/779,419. Upon resolution of all outstanding issues remaining in the Office Action, Applicant will consider the timely submission of a Terminal Disclaimer.

The Examiner has provisionally rejected Claims 1-4 and 17-18 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 20 and 22-25 of co-pending Application No. 10/699,529 in view of Gatto U.S. Patent Publication No. 2003/0171226 (“Gatto”).

When analyzing a reference employed in an obvious-type double patenting rejection the guidelines for the analysis parallels that of a 35 U.S.C. §103 obviousness determination. *In re Braat*, 937 F.2d 589, 19 USPQ2d 1289 (Fed. Cir. 1991). Co-pending Application No. 10/699,529 was published on May 5, 2005 as Publication No. US-2005-0095718-A1 (“Wollenberg '718”). It is submitted that Wollenberg '718 is not prior art, as stated under 35 U.S.C. 103(c) and also MPEP §706.02(l)(1). That section of the statute states, in part:

(c) Subject matter developed by another person, which qualifies as prior art only under one or more subsections (e), (f), and (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed inventions were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

The MPEP section states that the above-quoted 35 U.S.C. §103(c) applies to all utility, design and plant patent applications filed on or after November 29, 1999.

The present application was filed on February 13, 2004. Furthermore, the present application was, at the time the invention was made, subject to an obligation of assignment and was assigned to Chevron Oronite Company, LLC, also the assignee of Wollenberg '718. Accordingly, it is submitted that Wollenberg '718 is not prior art. Therefore, since Wollenberg '718 is not prior art and because Gatto does not disclose or suggest the presently claimed method and system, withdrawal of the rejection of Claims 1-4, 17 and 18 under the judicially created doctrine of obviousness-type double patenting is warranted and such is respectfully requested.

The Examiner has provisionally rejected Claims 1-4, 6-9, 15-19, 24-27, 29 and 30 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1-3, 6-7, 9-12, 14-15, 18-23, 26-27, 29-32, 34-35 and 38-45 of co-pending Application No. 10/699,507 in view of Gatto.

Co-pending Application No. 10/699,507 was published on May 5, 2005 as Publication No. US-2005-0095716-A1 (i.e., Wollenberg '716, discussed hereinbelow). It is submitted that Wollenberg '716 is not prior art, as stated under 35 U.S.C. 103(c) and also MPEP §706.02(l)(1). As previously stated, the present application was filed on February 13, 2004. Furthermore, the present application was, at the time the invention was made, subject to an obligation of assignment and was assigned to Chevron Oronite Company, LLC also the assignee of Wollenberg '716. Accordingly, it is submitted that Wollenberg '716 is not prior art. Therefore,

since Wollenberg '716 is not prior art and because Gatto does not disclose or suggest the presently claimed method and system, withdrawal of the rejection of Claims 1-4, 6-9, 15-19, 24-27, 29 and 30 under the judicially created doctrine of obviousness-type double patenting is warranted and such is respectfully requested.

The Examiner has provisionally rejected Claims 1-4, 17-18, 24-27, 29 and 30 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1-3, 6, 11-12, 15-18 and 20-23 of co-pending Application No. 10/699,508 in view of Gatto.

Co-pending Application No. 10/699,508 was published on May 5, 2005 as Publication No. US-2005-0095717-A1 (i.e., Wollenberg '717, discussed hereinbelow). It is submitted that Wollenberg '717 is not prior art, as stated under 35 U.S.C. 103(c) and also MPEP §706.02(l)(1). As stated above, the present application was filed on February 13, 2004. Furthermore, the present application was, at the time the invention was made, subject to an obligation of assignment and was assigned to Chevron Oronite Company, LLC, also the assignee of Wollenberg '717. Accordingly, it is submitted that Wollenberg '717 is not prior art. Therefore, since Wollenberg '717 is not prior art and because Gatto does not disclose or suggest the presently claimed method and system, withdrawal of the rejection of Claims 1-4, 17-18, 24-27, 29 and 30 under the judicially created doctrine of obviousness-type double patenting is warranted and such is respectfully requested.

The Examiner has rejected Claim 35 under 35 U.S.C. §102(e) as being anticipated by either Wollenberg et al. U.S. Patent Application Publication No. 2005/0095716 ("Wollenberg '716") or Wollenberg et al. U.S. Patent Application Publication No. 2005/0095717 ("Wollenberg '717").

In contrast to the presently claimed invention, Wollenberg '716 and Wollenberg '717 fail to disclose a high throughput method for screening lubricating oil composition samples, under program control, comprising the steps of "(a) providing a plurality of different lubricating oil composition samples, each sample comprising (i) a major amount of at least one base oil of lubricating viscosity, and (ii) a minor amount of at least one lubricating oil additive selected from the group consisting of detergents, ashless dispersants and mixtures thereof; (b) measuring non-oxidized deposit formation of each sample to provide deposit formation data for each sample, wherein the deposit formation of each sample is associated with a selected part of or an entire running internal combustion engine; and, (c) outputting the results of step (b)" as presently recited in amended Claim 35.

Rather, Wollenberg '716 discloses a high throughput screening method and system for determining storage stability by maintaining each sample at a predetermined temperature and optionally at a predetermined humidity for a predetermined time and measuring the storage stability of each sample to provide storage stability data for each sample. A storage stability measurement is used to determine the shelf life of a lubricating oil composition. In contrast, the presently recited non-oxidized deposit formation measurement of a sample containing a major amount of at least one base oil of lubricating viscosity, and a minor amount of at least one lubricating oil additive selected from the group consisting of detergents, ashless dispersants and mixtures thereof is associated with a selected part of or an entire running internal combustion engine. Therefore, the non-oxidized deposit formation measurement associated with a selected part of or an entire running internal combustion engine is not the same as a storage stability measurement. Accordingly, amended Claim 35 is believed to possess novel subject matter relative to Wollenberg '716.

Wollenberg '717 discloses a high throughput screening method and system for determining lubricant performance by measuring the oxygen stability of each sample to provide oxygen stability data for each sample. Oxygen stability measurements are different than non-oxidized deposit formation measurements. As set forth on page 3 of the specification:

Deposit formation also occurs when, for example, internal combustion engines of automobiles or trucks are subjected to a demanding environment during use. The environment results in the oil suffering oxidation which is catalyzed by the presence of impurity species in the oil such as, for example, iron compounds, and is also promoted by the elevated temperatures experienced by the oil during use.

This is further illustrated in LUBRICANT ADDITIVES”, Marcel Dekker, Inc., pp. 113-115 (2003) (Exhibit 1) which states:

Oxidation inhibitors, detergents, and dispersants make up the general class of additives called *stabilizers and deposit control agents*. These additives are designed to control deposit formation, either by inhibiting the oxidative breakdown of the lubricant or by suspending the harmful products already formed in the bulk lubricant. Oxidation inhibitors intercept the oxidation mechanism, and dispersants and detergents perform the suspending part.
[emphasis in original]

As Wollenberg '717 does not disclose the presently recited step of “measuring non-oxidized deposit formation of each sample to provide deposit formation data for each sample, wherein the deposit formation of each sample is associated with a selected part of or an entire running internal combustion engine” of amended Claim 35, amended Claim 35 is believed to possess novel subject matter relative to Wollenberg '717.

The Examiner has rejected Claim 35 under 35 U.S.C. §102(e) as being unpatentable over Kolosov et al. U.S. Patent Publication No. 2004/0123650 (“Kolosov et al.”).

In contrast to the presently claimed invention, Kolosov et al. also fail to disclose a high throughput method for screening lubricating oil composition samples, under program control, comprising the steps of “(a) providing a plurality of different lubricating oil composition samples, each sample comprising (i) a major amount of at least one base oil of lubricating viscosity, and (ii) a minor amount of at least one lubricating oil additive selected from the group consisting of detergents, ashless dispersants and mixtures thereof; (b) measuring non-oxidized deposit formation of each sample to provide deposit formation data for each sample, wherein the deposit formation of each sample is associated with a selected part of or an entire running internal combustion engine; and, (c) outputting the results of step (b)” as presently recited in amended Claim 35.

It is well established that, for a claim to be anticipated, a single prior art reference must disclose each and every element of the claimed invention, *either expressly or inherently*.

Lewmar Marine, Inc. v. Barient, Inc., 827 F.2d 744, 747, 3 USPQ2d 1766, (Fed. Cir. 1987); cert. denied, 484 U.S. 1007 (1988). Firstly, Kolosov et al. fail to expressly disclose the step of “(a) providing a plurality of different lubricating oil composition samples, each sample comprising (i) a major amount of at least one base oil of lubricating viscosity, and (ii) a minor amount of at least one lubricating oil additive selected from the group consisting of detergents, ashless dispersants and mixtures thereof” as presently recited in amended Claim 35. Rather, Kolosov et al. simply disclose in paragraph 0042 that most any flowable material that may be a commercial product itself or may be an ingredient or portion within a commercial product can be screened or tested, one of which may be a lubricant and a detergent. However, there is no express disclosure of a “sample comprising (i) a major amount of at least one base oil of lubricating viscosity, and

(ii) a minor amount of at least one lubricating oil additive selected from the group consisting of detergents, ashless dispersants and mixtures thereof" as presently recited in amended Claim 35.

There is also no inherent disclosure in Kolosov et al. of the presently claimed "sample comprising (i) a major amount of at least one base oil of lubricating viscosity, and (ii) a minor amount of at least one lubricating oil additive selected from the group consisting of detergents, ashless dispersants and mixtures thereof". It is a well established rule that inherency may not be established by probabilities or possibilities. As summarized in *Continental Can Company USA v. Monsanto Company*, 948 F.2d 1264, 1269, 20 USPQ2d 1746, 1749 (Fed. Cir. 1991), "Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient." Accordingly, the mere fact that Kolosov et al. disclose that a commercial product, which may be a lubricant and a detergent, can be screened or tested cannot rise to the level of anticipatory subject matter. In point of fact, a lubricating oil composition can be a concentrate that contains a major amount of a lubricating oil additive and a minor amount of base oil of lubricating viscosity as a diluent for the concentrate. Thus, Kolosov et al. does not disclose, either expressly or inherently, a sample comprising (a) a major amount of at least one base oil of lubricating viscosity and (b) a minor amount of least one lubricating oil additive as presently recited in amended Claim 35. Thus, Kolosov et al. do not disclose all of the elements and limitations of the claimed invention.

Kolosov et al. also does not disclose or suggest the step of "measuring non-oxidized deposit formation of each sample to provide deposit formation data for each sample, wherein the deposit formation of each sample is associated with a selected part of or an entire running internal combustion engine" as presently recited in amended Claim 35.

Rather Kolosov et al. simply disclose that properties of interest include, without limitation, rheological properties such as viscosity, viscoelasticity (e.g., shear dependent viscoelasticity), shear thinning, shear thickening, yield, stress and the like. Kolosov et al. goes on to disclose that other properties of interest may include, without limitation, density, melt index, thermal degradation, aging characteristics, weight-average molecular weight, number-average molecular weight, viscosity-average molecular weight, peak molecular weight, approximate molecular weight, polydispersity index, molecular-weight-distribution shape, relative or absolute component concentration, chemical composition, conversion, concentration, mass, hydrodynamic radius, radius of gyration, chemical composition, amounts of residual monomer, presence and amounts of other low-molecular weight impurities in samples, particle or molecular size, intrinsic viscosity, molecular shape, molecular conformation, and/or agglomeration or assemblage of molecules. However, at point is there any disclosure in Kolosov et al. of the claimed step of “measuring non-oxidized deposit formation of each sample to provide deposit formation data for each sample, wherein the deposit formation of each sample is associated with a selected part of or an entire running internal combustion engine”. Accordingly, amended Claim 35 is further believed to possess novel subject matter relative to Kolosov et al.

For the foregoing reasons, amended Claim 35 clearly possesses novel subject matter relative to Kolosov et al. and withdrawal of the rejection under 35 U.S.C. §102(e) is respectfully requested.

The Examiner has rejected Claims 1-4, 6-9, 15-27 and 29-33 under 35 U.S.C. §103(a) as being unpatentable over Wollenberg '716" or Wollenberg et al. '717 in view of Gatto.

It is submitted that Wollenberg '716 and Wollenberg et al. '717 are not prior art, as stated under 35 U.S.C. 103(c) and also MPEP §706.02(l)(1). is not prior art, as stated under 35 U.S.C.

103(c) and also MPEP §706.02(l)(1). As stated above, the present application was filed on February 13, 2004. Furthermore, the present application was, at the time the invention was made, subject to an obligation of assignment and was assigned to Chevron Oronite Company, LLC, also the assignee of Wollenberg '716 and Wollenberg et al. '717. Accordingly, it is submitted that Wollenberg '716 and Wollenberg et al. '717 are not prior art. Accordingly, since Wollenberg '716 and Wollenberg et al. '717 are not prior art and because Gatto. do not disclose or suggest the presently claimed method and system, withdrawal of the rejection of Claims 1-4, 6-9, 15-27 and 29-33 under 35 U.S.C. §103 (a) is warranted and such is respectfully requested.

The Examiner has rejected Claims 1-4, 15-16, 19-27 and 31-33 under 35 U.S.C. §103 (a) as being unpatentable over Kolosov et al. in view of Gatto.

As pointed out by the Examiner, nowhere does Kolosov et al. disclose or suggest the subject matter of Claim 1 which recites a high throughput method for screening lubricating oil composition samples, under program control, comprising (a) providing a plurality of different lubricating oil composition samples, each sample comprising (i) a major amount of at least one base oil of lubricating viscosity, (ii) a minor amount of at least one lubricating oil additive; and (b) measuring deposit formation of each sample comprising heating the sample to a predetermined temperature in the presence of a substrate and determining the amount of deposits formed on the substrate after a predetermined period of time by determining the weight of the substrate containing deposits and comparing the determined weight with the weight of the substrate to provide deposit formation data for each sample.

Nor, as pointed out by the Examiner, does Kolosov et al. disclose or suggest the subject matter of Claim 24 which recites a system for screening lubricant performance, under program control, comprising, *inter alia*, “(a) a plurality of test receptacles, each receptacle containing a

different lubricating oil composition sample comprising (i) a major amount of at least one base oil of lubricating viscosity, and (ii) a minor amount of at least one lubricating oil additive ... and (c) means for measuring the deposit formation of each respective sample in the testing station comprising means for heating the sample to a predetermined temperature in the presence of a substrate and means for determining the amount of deposits formed on the substrate after a predetermined period of time by determining the weight of the substrate containing deposits and comparing the determined weight with the weight of the substrate to obtain deposit formation data associated with the sample and for transferring the deposit formation data to a computer controller”.

In order to cure the deficiencies of Kolosov et al., the Examiner states on page 25 of the the Office Action:

it would have been obvious to one of ordinary skill in the art at the time of the instant invention to screen the lubricant/additive compositions in the combinatorial array taught by Kolosov et al. for deposit formation by heating the compositions in the presence of a substrate since Kolosov et al. teach that the plurality samples in the array are screened for various material characteristics such as the formation of sediments (i.e., deposits) therein, and Gatto teaches that it is common to screen lubricating oil compositions for their formation of deposits by heating the sample and placing it on a substrate, wherein deposits form on the substrate over time and the amount of deposits is determined using the difference between the weight of the substrate and the weight of the substrate plus deposits formed thereon.

It well established that there must be some teaching, motivation or suggestion to select and combine references relied upon as evidence of obviousness. As is the case here, Gatto provides no teaching, motivation or suggestion of a step of measuring deposit formation of each

sample comprising heating the sample to a predetermined temperature in the presence of a substrate and determining the amount of deposits formed on the substrate after a predetermined period of time by determining the weight of the substrate containing deposits and comparing the determined weight with the weight of the substrate to provide deposit formation data for each sample in a high throughput method as presently recited in Claim 1. Nor does Gatto provides any teaching, motivation or suggestion of a means for measuring the deposit formation of each respective sample in the testing station comprising means for heating the sample to a predetermined temperature in the presence of a substrate and means for determining the amount of deposits formed on the substrate after a predetermined period of time by determining the weight of the substrate containing deposits and comparing the determined weight with the weight of the substrate to obtain deposit formation data associated with the sample and for transferring the deposit formation data to a computer controller in a high throughput system as presently recited in Claim 24.

In contrast, Gatto is simply manually testing lubricating oil compositions using a Caterpillar Micro-Oxidation test. Certainly, one skilled in the art would not look to the manual test of Gatto to modify the properties being tested for the rheological samples in the high throughput method disclosed in Kolosov et al. and arrive at the presently claimed invention. Only by using Applicant's disclosure as a guide has the Examiner been able to piece together the claimed invention. Accordingly, Claims 1-4, 15-16, 19-27 and 31-33 are believed to be nonobvious, and therefore patentable, over Kolosov et al. and Gatto. Thus, withdrawal of the rejection is respectfully requested.

The Examiner has rejected Claims 6-9 under 35 U.S.C. §103 (a) as being unpatentable over Kolosov et al. in view of Gatto, and further in view of Tolvanen et al. U.S. Patent No. 5,715,046 ("Tolvanen et al.").

The foregoing deficiencies of Kolosov et al. and Gatto discussed above with respect to the rejection of Claim 1, from which Claims 6-9 ultimately depend, apply with equal force to this rejection.

Tolvanen et al. fail to cure the foregoing deficiencies of Kolosov et al. and Gatto. Rather, Tolvanen et al. simply disclose a method of determining the stability of heavy oil fractions derived from petroleum or the stability of their mixtures by adding diluents and asphaltene-flocculating agents to an oil sample until the flocculation point of asphaltenes is reached; using a suitable prism to direct a first light ray from a light source onto the surface of the oil sample, wherein the sample is in a closed space formed in part by a side wall of the prism; and measuring the intensity of a second light ray scattered or reflected from the surface of the sample, whereby a sharp increase in the intensity of the second light ray indicates the flocculation point of the asphaltenes. Tolvanen et al. goes on to state that when a prism is used there is no open oil sample surface in the measuring device, so the measuring device can be entirely closed. As such, even by combining Tolvanen et al. with Kolosov et al. and Gatto, one skilled in the art would not even arrive at the claimed high throughput method. For the foregoing reasons, Claims 6-9 are believed to be nonobvious, and therefore patentable, over Kolosov et al., Gatto and Tolvanen et al.

The Examiner has rejected Claims 17-18 under 35 U.S.C. §103 (a) as being unpatentable over Kolosov et al. in view of Gatto and further in view of Smrcka et al. European Patent Application No. 1,233,361 ("Smrcka").

The foregoing deficiencies of Kolosov et al. and Gatto discussed above with respect to the rejections of Claim 1, from which Claims 17 and 18 ultimately depend, apply with equal force to this rejection. Smrcka et al. do not cure and is not cited as curing the above-noted deficiencies of Kolosov et al. and Gatto. Rather, Smrcka et al. is merely cited for its disclosure of storing test results in a data carrier. Accordingly, Claims 17 and 18 are believed to be nonobvious, and therefore patentable, over Kolosov et al., Gatto and Smrcka et al.

The Examiner has rejected Claims 29-30 under 35 U.S.C. §103 (a) as being unpatentable over Kolosov et al. in view of Gatto and further in view of Garr U.S. Patent No. 5,993,662.

The foregoing deficiencies of Kolosov et al. discussed above with respect to the rejection of Claim 24, from which Claims 29-30 ultimately depend, apply with equal force to this rejection. The foregoing deficiencies of Kolosov et al. and Gatto discussed above with respect to the rejections of Claim 24, from which Claims 29 and 30 ultimately depend, apply with equal force to this rejection. Garr et al. do not cure and is not cited as curing the above-noted deficiencies of Kolosov et al. and Gatto. Rather Garr et al. is simply cited for the disclosure of employing a bar code to identify individual containers. Accordingly, Claims 29 and 30 are believed to be nonobvious, and therefore patentable, over Kolosov et al., Gatto and Garr et al.

Appln. No. 10/779,422
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For the foregoing reasons, amended Claims 1-35 as presented herein are believed to be in condition for allowance. Such early and favorable action is earnestly solicited.

Respectfully submitted,


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